

Wildfire Mitigation... What is It?

Wildfire mitigation is the implementation of various measures designed to reduce the risk of destruction by wildfire. It involves modifying the environment surrounding a structure and the design and construction of a structure in order to increase its ability to withstand a wildfire without being dependent upon suppression resources.

Wildfire Mitigation... Who does it?

Anyone who owns a home or property in forested areas should consider the hazard presented to their property by a wildfire and should attempt to mitigate its effects. By doing wildfire mitigation work, homeowners can substantially **increase** their safety and **reduce** the risk to life and property. However, it should be noted that given the unpredictable nature and behavior of wildfire, **there are no guarantees**.

Wildfire Mitigation Plan

With an increasing number of structures being built in forested areas of Utah, the County is attempting to minimize the loss of lives and property from wildfires by including wildfire mitigation measures in the Site Plan Review process.

Wildland Urban Interface lots are often located on steep hillsides where access may be difficult and little if any water is available for firefighting. They are usually covered with dense vegetation, many of which can burn in a dramatic and devastating manner, destroying homes in the process. The creation and implementation of a Wildfire Mitigation Plan is an important step towards remedying this situation.

An acceptable Wildfire Mitigation Plan consists of two parts: 1) a site plan, showing the location and extent of structures and other improvements, the defensible space management zones around the structures, the driveway access for emergency vehicles, emergency water supply for fire fighting, and the locations of other specific natural and human created features; and 2) a narrative that describes in detail these same features. These considerations must be addressed along with all of the other considerations brought into the Site Plan Review process, such as tree preservation and re-vegetation. All wildfire mitigation conditions will be in addition to any applicable building code requirements.

SITE LOCATION

Demonstrate how the proposed construction site has been selected for the best location with respect to the natural characteristics and conditions of the property. Describe the location that has been chosen for the structure(s) with respect to the natural characteristics and conditions of the property. Include the following information:

- Property location and access (public or private road)
- Position of existing and/or proposed structure(s)
- Lot size (acreage), slope (%), aspect (N,E,S,W), and elevation (feet)

- Dangerous topographic features, such as valleys, saddles, steep slopes, and ridges
- Barriers to fire spread that could serve as a fuel break, such as major roads, rock outcroppings, bodies of water, riparian corridors, aspen stands
- Overstory and understory vegetation types, densities, and conditions
- Percent ground cover: live vegetation, duff and dead wood, rock and soil
- Presence /absence of insect and/or disease infestations

CONSTRUCTION DESIGN AND MATERIALS

Show that the construction design and building materials selected will minimize the potential for the structure(s) to be ignited by a wildfire and will provide the best chance of defending the structure(s) from a wildfire. Include information on the:

- Size and shape of the structure(s) (simple vs. complex); orientation (north-south, east-west)
- Fire-resistance of construction materials (roofing and siding; windows and doors)
- Size and construction of exterior features such as decks, balconies, and exterior stairs
- Construction details for soffits and fascia; placement of venting; chimneys
- Location of utilities (power and telephone; above or below ground), propane tanks (distance from structure and elevation), wells, leach fields, water storage tanks, etc.

THREAT REDUCTION ZONES:

Describe how wildfire mitigation steps are being addressed in the various zones:

Access Zone: Information required includes:

- ❑ Address: Should be readily visible from the street.
- ❑ Road width and grade: Home should be serviced by access roads a minimum of 20 feet wide and long driveways at least 12 feet wide. Maximum grade of 12% or less if local fire equipment mandates.
- ❑ Turnarounds/turnouts: Turnarounds are required for dead-end roads and on driveways in excess of 150 feet. Driveways in excess of 200 feet in length and less than 20 feet in width shall be provided with turnouts in addition to turnarounds.
- ❑ Driveway clearance: Flammable vegetation should be removed extending 10 feet from both sides of the driveway. Driveways shall have an unobstructed height of 13 feet 6 inches.
- ❑ Bridges and Culverts: Inadequately built bridges or culverts may prevent firefighting equipment from reaching your home. Check on engineering design if included in your project.

Defensible Space Zone: Demonstrate that defensible space is available and/or will be created around structures. Describe the steps that will be taken to modify the vegetation

and protect the structure(s) from a future wildfire. Make considerations for the re-vegetation plan, tree preservation, and general forest health.

Required defensible space distance is determined by completion of a “Fire Hazard Severity Form: included in the Utah Wildland-Urban Interface Code as completed by the authority having jurisdiction.

Fuel Modification Distances for each hazard area are:

- ❑ Moderate hazard: 30 feet
- ❑ High hazard: 50 feet
- ❑ Extreme hazard: 100 feet

Trees are allowed in the defensible space, provided the horizontal distance between crowns of adjacent trees or unmodified fuel is not less than 10 feet. Where ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants are used as ground cover, they are allowed be within the designated defensible space, provided they do not form a means of transmitting fire from the native growth to any structure. (2006 Utah WUI Code section 603)

Defensible spaces shall be maintained annually, or as necessary.

Additional fire protection requirements around the structure include:

- Spark arresters: Chimneys serving fireplaces, barbeques, incinerators or decorative heating appliances shall be provided with a spark arrester.
- Liquefied Petroleum Gas Installations: Installed and maintained according to the fire code.
- Storage of Firewood and Combustible Materials: Shall not be stored in unenclosed spaces beneath buildings or structures, or on decks, or under eaves, canopies or other projections or overhangs. Should be stored a minimum of 30 feet from structures and separated form the crown of trees by a minimum horizontal distance of 15 feet.

Built Zone: Buildings and st4ructures shall be constr4ucted in accordance with the *International building Code* and additional Ignition-Resistant Construction Class requirements as determined by the Fire Hazard Severity Form for the project and specified in the WUI Code. Building requirements are available through the building department and from the applicable codes. The built zone is addressed during the building permit application process and plan review.

Interior Zone: This zone includes items that should be considered to prevent fires from originating in the home. Items to consider include:

- Sprinkler Systems: A sprinkler system installed inside the home can provide effective fire protection. It will operate automatically and can extinguish a fire

- while you are asleep or away from home. It is especially effective in areas with less than ideal water supply and long emergency response distances.
- Carbon Monoxide detectors: Use in conjunction with smoke detectors.
 - Escape plans: By planning and practicing exit drills, you can better prepare your family for a fire emergency.
 - Portable fire extinguishers:
 - Proper storage of flammable paint and stain products:
 - Proper installation and use of wood stoves and fireplaces:
 - Other heating systems: Kerosene and other fuel-fired heaters should be used properly.

WATER SUPPLY

Describe where an adequate and accessible water supply has been located for the defense of the structure(s) Include information on the:

- Location of draft sources approved by the local fire protection agency (i.e. municipal hydrants, community cisterns, dry hydrants in local water sources) or the location, size, construction type and fittings for an individual cistern
- Residential sprinkler system (if applicable)

Consult with the local water company on this item.

MAINTENANCE

In addition to the information presented in the above sections, you may also want to mention specific maintenance actions that will be undertaken in the future. This could include such things as:

- Home maintenance: annual removal of debris from the roof and gutters and from around the house; regular cleaning of you chimney (if applicable)
- Extending defensible space: additionally tree pruning, removing broken branches and disposing of slash; burning slash piles and firewood; checking for insect and disease problems; maintenance of a rock barrier; irrigation and mowing of green space
- Conducting a regulars inspection of cistern and/or sprinkler systems (if applicable)
- Maintenance of the access and driveway; checking address and road signs; planning escape routes

WHY WILDFIRE MITIGATION

The State of Utah has witnessed major destructive wildfires in recent times. Increasing hazards and development in the wildland-urban interface are threatening the States' and counties' abilities to prepare for and respond to wildfire. Yet many people still don't recognize the risk posed to their homes and properties by a wildfire and what they can do to mitigate that threat. Wildfires have always been a natural occurrence in Utah, but over the last 100 years, various land management practices, including fire suppression, has resulted in forests with vegetation densities 10 to 100 times their natural state. Combine this with factors such as steep terrain, drought, high summer-time temperatures, and seasonal high winds, and an increased human presence in the form of development and recreational use, the result is an environment prone to extreme wildfire behavior. These very dangerous conditions have lead to fires which are more numerous and devastating than ever before, challenging the abilities and resources of fire fighting agencies. Additionally, the response to a fire by emergency response organizations faced with these conditions is also limited by factors such as the amount of equipment and personnel available, number and location of water sources, difficulty or ease of access, and number and types of structures present. By completing wildfire mitigation work, creating defensible space and performing routine maintenance around homes, homeowners are giving firefighters and themselves the best chance to defend their property from wildfires.